

APPENDIX A

EE/CA CONTRACTOR SCOPE OF WORK

APPENDIX A - ANNEX AE
SCOPE OF WORK FOR ORDNANCE AND EXPLOSIVE (OE)
ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) – PHASE II
AT WAIKOLOA MANEUVER AREA & NANSAY SITES
KAMUELA, ISLAND of HAWAII, HAWAII
FORMERLY USED DEFENSE SITES

1.0 BACKGROUND AND OBJECTIVE

1.1 The work required under this Scope of Work (SOW) falls under the Defense Environmental Restoration Program (DERP) and the Formerly Used Defense Site (FUDS) program. Ordnance and Explosives (OE) may exist on property that was formerly owned, used or controlled by the Department of Defense. The framework underlying this response is the National Contingency Plan (NCP).

1.2 OE is a safety hazard and constitutes an imminent and substantial endangerment to site personnel and the local population. This action will be performed in a manner consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Sections 104 and 121; Executive Order 12580; the National Contingency Plan (NCP). In accordance with the above, no federal, state or local permits are required nor will be obtained for actions, including on-site destruction of unexploded ordnance (UXO), that may be required. However, substantive permit requirements shall be fulfilled. In addition, all activities involving work in areas potentially containing unexploded ordnance hazards shall be conducted in full compliance with CEHNC, USACE, DA and DoD requirements regarding personnel, equipment and procedures. 29 CFR 1910.120 shall apply to all actions taken at this site.

1.3 The objective of this task order is for the A-E to prepare an Engineering Evaluation/Cost Analysis (EE/CA) – Phase II report that allows and documents meaningful stakeholder participation; that characterizes ordnance and explosives (OE) nature, location and concentration; that provides a description of the OE related problems affecting human use of the site; that identifies and analyzes reasonable risk management alternatives; and that provides a convenient record of the process for use in final decision making and judicial review, if necessary, for the sectors described below.

2.0 INTRODUCTION

2.1 Background. The U. S. Navy through a licensing agreement with Richard Smart of Parker Ranch acquired 91,000 acres in Waikoloa in December 1943. It was used as an artillery firing range on which live ammunition and other explosives were employed, with the remaining acreage utilized for troop maneuvers, and the largest encampment on the island of Hawaii consisting of approximately 467 acres of tents and Quonset huts. The 2nd Marine Division was assigned to Waikoloa in December 1943 for five months of training, in preparation for the Saipan-Tinian campaign. The 5th Marine Division began arriving in August 1944 at the camp vacated by the 2nd Marine Division. Property comprising the Waikoloa Maneuver Area was surrendered to the Parker Ranch in September 1946, although the Marines had departed as of 30 June 1946. At least two ordnance clearance efforts were conducted, one in 1946 just prior to the departure of the 5th Marine Division, and the other in 1954 following accidental detonation of a dud fuse or shell killing two civilians and seriously injuring three others. The 1954 effort detected as many as 400 dud items including hand grenades, 60 and 81 mm mortars, 75 mm shells, and 105 and 155 mm shell fuses, 31 mm anti-tank cannon shells, and 4.2 inch mortars. OE continues to be discovered at the former Waikoloa Maneuver Area as development progresses. OE may be buried beneath the site or be on the ground surface and could still be capable of functioning. In the mid-to-late 1960's Parker Ranch subsequently sold off two parcels (Puako and Ouli) to the present owners, Nansay Hawaii, Inc., which purchased fee simple title to the properties

in April 1990. Nansay Hawaii, Inc. plans to construct golf communities thereon. Construction of a residential subdivision at the Ouli parcel of the Nansay Hawaii site is currently ongoing while the Puako parcel remains vacant and undeveloped.

2.2 Site Definition. The "site" consists of all areas under DoD control during the period of use.

2.3 Chemical Warfare Material. The site is not suspected to contain Chemical Warfare Material (CWM). However, if suspect CWM is encountered during any phase of site activities the A-E shall withdraw upwind from the work area, secure the site and contact CEHNC.

2.3 Areas To Be Evaluated. The areas identified in Table 1 are to be evaluated under this SOW.

Sector No.	Sector - Parcel Description	Acreage	Base	Option 1
-----	Phase I Investigation	521	-----	-----
1	All Area South of Waikoloa Road	13,444		23
2	Waikoloa Village Area with 1000' Buffer	1,816	23	
3	Area South of Saddle Road & East of Hwy. 190	29,382		23
4	Wind Farm Area with Buffer	1,117	23	
5	Area West of Waikoloa Village & Rock Wall	6,730	26	
6	Area East of Waikoloa Village minus Wind Farm	14,172	71	
7	Holoholoku Cinder Hill Area - East of Hwy. 190	22,123		23
8	Waimea Airport Area - Outside Waikoloa Boundary	5,417	27	
9	West of Rock Wall - Outside Waikoloa Boundary	6,180		23
10	North of Waikoloa Boundary & South of Hwy. 19	4,039		23
11	Puako Project Area (Task 16 - Nansay Site)	3000	23	
12	Ouli Project Area (Task 16 - Nansay Site)	458	22	
Amount of Sampling Required (Acres):			215	115

NOTE: See modifications to this table in Par. 3.19.

3.0 SPECIFIC REQUIREMENTS

3.1 Site Visit & Records Review. The A-E accomplished a site visit during the period 8 – 10 March 1999. The A-E also accomplished all work associated with Phase I of the EE/CA that involved property owned and controlled by Parker Ranch.

3.2 (Task 2) - EE/CA Reconnaissance and Site Prioritization Report.

3.2.1 Data Collection and Evaluation. The A-E shall review archival data provided by the Contracting Officer, that includes full photographic coverage of the site during WWII and the intervening years, a full set of 7.5 minute topographic maps of the site, and other pertinent federal, state, county and local maps. The A-E shall compare known OE-related activities and known ordnance recovery locations with current demographic and land-use patterns. Based on that analysis, the A-E shall determine areas with the highest potential for the public to encounter ordnance and shall prioritize the sites accordingly, with sites representing the greatest risk having the highest priority.

3.2.2 Site Prioritization Report. The A-E shall prepare a report that documents the evaluation and prioritization performed by the A-E and which describes, in general terms, the location and nature of all known potential ordnance areas. The Government has provided a sectorization and prioritization, as part of this SOW, and the Contractor may change this sectorization and prioritization through justification in the Site Prioritization Report. As part of the report the A-E shall prepare a folio approximately 22 inches X 27 inches (the size of a USGS 7.5 minute quadrangle sheet), containing the maps and with each map overlain with clear acetate (or similar material) showing suspected or known OE areas. The acetate overlays shall be CADD generated in Intergraph format. The folio and report shall cross-reference and complement each other, using the USGS quadrangle maps as the base mapping information. Care should be taken to ensure the boundaries and buffer zones for the Waikoloa Village Community, Wind Farm, and any other populated areas in the Waikoloa Village area

are conveyed accurately (see Section 3.6). The site shall be sectorized / prioritized based on the data provided by CEHNC and presented in this report.

3.3 (Task 3) - Geophysical Test Plot. The A-E shall, on a geophysical test plot at the site designed and established by the A-E, test various geophysical methods, equipment and personnel in order to establish the methods, equipment and procedures best suited to the site. The A-E shall use the information gathered in this phase of work to evaluate the relative efficiencies of potentially appropriate geophysical investigation procedures. Afterwards, the A-E shall propose specific geophysical methods, equipment and personnel appropriate and necessary to accomplish the required geophysical investigations. The A-E shall propose and justify appropriate geophysical methods, equipment and personnel for use at the site. The proposed geophysical methods must be clearly based upon site-specific conditions, instrument capabilities, and project goals. This effort should take no more than two days (i.e. one-day set-up and one day to implement).

3.4 (Task 4) - EE/CA Work Plan. The A-E shall prepare an EE/CA Work Plan in accordance with DID OT005-01. A "Master Work Plan" was created as part of the Phase I activities. This task is for the modification of the Master Work Plan to include Phase II activities. Implementing the option to sample an additional 115 acres will be determined so that the A-E can incorporate the effort into the EE/CA Work Plan.

3.5 (Task 5) - Location Surveys and Mapping. The A-E shall perform topographic and location surveys as described in the approved Work Plan and in accordance with (IAW) DID OT005-07.

3.6 (Task 6) - Establishment and Management of GIS. The A-E shall take the GIS information created for Phase I activities and expand the data and drawings to include Phase II activities. Initial Phase II mapping data will be based on existing USGS topographic maps (1:24,000-scale) and existing GIS data available from the State of

Hawaii. The accuracy of these data will be compared to GPS data collected in the field and revised accordingly as field activities are completed. The GIS shall be assembled and used to direct the daily geophysical investigative activities and to compile and analyze the daily digital data and incorporate it into the GIS. All changes from the standard shall be fully documented into a manual specifically tailored for this project. The A-E shall establish and manage the GIS as described in the approved Work Plan and IAW DID OT005-05 and DID OT005-07.

3.7 (Task 7)Site Investigation and Sampling. **NOTE: See modifications to this table in Par. 3.19.** The A-E shall characterize the site by implementing the work described in the Project Work Plan and including, but not necessarily limited to, the following activities:

3.7.1 Surface Preparation, OE Identification and Removal. The A-E shall provide all necessary qualified personnel IAW DID OT-025, and equipment to perform surface preparation, as well as surface OE identification, removal and disposal on the 215 (170 acres for Task 7 plus 45 acres for Task 16 – Nansay Area) acres where subsequent site activities are scheduled to occur under this contract. The A-E shall perform the minimum amount of work necessary to clear the areas of vegetation, surface OE and OE scrap where these impede the progress, effectiveness or safety of the geophysical investigation team. All OE-related activities shall be performed IAW applicable sections of the approved work plan.

3.7.2 Geophysical Investigation and Evaluation. The A-E shall implement geophysical investigations as described in the approved Work Plan and DID OT005-05.

3.7.2.1 Investigation. The total cumulative area to be geophysically investigated and evaluated under this SOW consists of approximately 215 (170 acres for Task 7 plus 45 acres for Task 16 – Nansay Area) acres. This investigation will be a mixture of individual grids and random path sampling consisting of approximately 350

100- by 100-foot grids and 174 linear miles of meandering path. The actual number and location of grids may increase or decrease based upon conditions encountered in the field, if so directed by the Contracting Officer. The work plan will describe the planned location, size, and type of investigation that will occur for each sector.

3.7.2.2 Evaluation. After the site is geophysically mapped, the A-E shall utilize a qualified geophysicist to check and evaluate the geophysical data collected. The geophysicist shall make a professional determination regarding the identification of anomalies at the site. Based on this determination, the A-E shall provide a "dig-sheet" showing predicted location and character of all suspected anomalies to the CEHNC Project Manager. In addition, the A-E shall continually compare predicted results with actual results so that the A-E's geophysical evaluation methodology is constantly refined over the life of the project.

3.7.2.3 Anomaly Selection. Note that not all-geophysical anomalies meeting the criteria to be considered a potential UXO will be dug. Representative anomalies will be excavated in order to characterize geophysical anomalies and to provide information necessary to estimate location, concentration and nature of UXO present at the site.

3.7.2.4 Data Format and Storage. The A-E shall utilize an appropriate data format and storage system for geophysical mapping data that is consistent with CEHNC computer/CADD systems and as described in the approved Work Plan.

3.7.3 Intrusive Investigations (OE Sampling). The A-E shall, utilizing qualified personnel IAW DID OT-025, implement site OE sampling as specified in the approved work plan. This task shall be accomplished as follows:

3.7.3.1 OE Access, Evaluation and Management. The A-E shall, utilizing qualified personnel, implement site OE sampling as described in the approved Work Plan. The A-E shall provide all necessary qualified personnel and equipment to perform surface and subsurface OE access, evaluation and management.

3.7.3.2 Accessing Anomalies. The A-E shall access anomalies identified by the geophysical investigations and as directed by the Contracting Officer. The A-E shall, using qualified UXO personnel, determine whether the OE can be moved or destroyed in-place. This is a safety-driven decision that will be based solely on DoD munitions safety standards and requirements.

3.7.3.3 OE Destruction. The A-E shall be responsible for the destruction, if required, of all UXO encountered during site investigations and characterizations utilizing qualified personnel and in accordance with all aspects of the project Work Plan. The A-E shall establish in the Work Plan a method of disposal, if required, for all OE. This disposal shall follow the guidelines established in DID OT-005-03 and DID OT-005-04.

3.7.3.4 Backfilling Excavations. All access/excavation/detonation holes shall be backfilled by the A-E. The A-E shall restore such areas to their prior condition by replacing the original topsoil and manually tamping the excavation.

3.7.3.5 OE Accountability. The A-E shall maintain a detailed accounting of all OE items/components encountered. This accounting shall include the amounts of OE, the identification and condition, depth located, disposition and location. The accounting system shall also account for all demolition materials utilized to detonate OE on-site. This accounting shall be a part of an appendix to the EE/CA report.

3.7.3.6 DD Form 1348-1. The A-E shall complete a DD Form 1348-1 as turn-in documentation. Instructions for completing this form are contained in the Defense Utilization and Disposal Manual, DoD 4160.21-M. The Senior UXO Supervisor shall sign a certificate as follows:

"I certify that the property listed hereon has been inspected by me and, to the best of my knowledge and belief, contains no items of a dangerous nature."

DRMO turn-in documentation receipts shall be submitted as an appendix to the EE/CA Report.

3.7.3.7 UXO Quality Control (QC) Specialist. The individual performing the UXO QC shall not be involved in the performance of other OE field tasks. UXO QC shall be a separate function and is not envisioned as a full-time position. The UXO QC Specialist shall meet the minimum prerequisites of an UXO Supervisor and have the training, knowledge and experience necessary to implement the A-E's QC plan as outlined in DID OT-025. Any exceptions must be approved by the Contracting Officer.

3.7.3.8 Quality Assurance Sampling Areas. In order to evaluate the effectiveness of the geophysical investigation and evaluation methods utilized by the A-E, the Contracting Officer may direct the A-E, government personnel, or an independent contractor provided by the government, to independently map, locate and access all detected subsurface anomalies at locations as directed.

3.8 (Task 8) Archaeological Survey. **NOTE: See modifications to this table in Paragraph 3.19.** The A-E will be provided with an Archeological Survey Report that identifies areas of concern. The A-E shall provide all necessary personnel and equipment to identify and protect all known archaeological resources. The A-E shall provide awareness training to all personnel involved with fieldwork, as outlined in the approved Work Plan.

3.9 (Task 9) Flora and Fauna Survey. The A-E will be provided with a Flora and Fauna Survey that identifies areas of concern, or specific Flora and Fauna to be protected during field activities. The A-E shall provide awareness training to all personnel involved with the field investigation. Special important habitat and indication of these species shall be identified and recorded on-site maps or other suitable maps. Work

shall comply with the National Environmental Policy Act (NEPA). CEPOD will periodically supply a consultant to assist the contractor with Flora and Fauna concerns, and clarifications to the provided Flora and Fauna Survey.

3.10 (Task 10) Institutional Analysis. The A-E shall perform an institutional IAWDID EE/CA-006.

3.11 (Task 11) Risk Evaluation. The A-E shall utilize a CEHNC computer program, *OECert*, to determine the baseline public risk and the predicted risk reduction for each removal alternative evaluated in the EE/CA. The A-E shall write a risk report in accordance with the *OECert* Standing Operating Procedure that supports the EE/CA report and that determines the baseline public risk and the resultant public risk for each alternative under consideration. The A-E shall ensure that qualified personnel collect the required data, operate the computer model and write the risk report in accordance with CEHNC 1115-3-86, "*Ordnance and Explosives Cost-Estimating Risk Tool (OECert) Standing Operating Procedure (SOP)*".

3.11.1 Site UXO Statistical Report. As part of the risk evaluation report the A-E shall write a statistical report that shows how the UXO densities were determined. The A-E shall use the UXO Calculator methodology for determining a range of sector densities unless a prior statistical method has been approved by the Government

3.12 (Task 12) Prepare EE/CA Report. The A-E shall prepare and submit an EE/CA report fully documenting the fieldwork and subsequent evaluations and recommendations made by the A-E. The textual portions of the report shall be fully supported with accompanying maps, charts, and tables as necessary to fully describe and document all work performed and all conclusions and recommendations presented.

3.13 (Task 13) Prepare Action Memorandum. The A-E shall, based upon close consultation with the Contracting Officer, prepare an Action Memorandum in accordance with applicable CEHNC guidance documents.

3.14 (Task 14) Community Relations Support. The A-E shall attend and participate in public meetings as directed by the Contract Officer. The support shall include preparation and delivery of briefings, graphics and presentations, and participation in site visits.

3.15 (Task 15) Meetings and Project Management. The A-E shall perform project management functions as necessary to maintain project control and to meet required reporting requirements. The A-E will participate/support in two project status meetings, one to be held in Huntsville, the other to be held at the A-E.

3.16 (Task 16) Field Effort for Nansay Sites. The A-E shall safely perform IAW the Work Plan all of the above field-related tasks (including Tasks 4 through 11) to characterize the two sub-site for the Nansay Sites (Puako and Ouli).

3.17 (Task 17) - Prepare Explosives Safety Submission (ESS). If the Action Memorandum decision is for no further action (NOFA) or Institutional Controls, the A-E shall, if directed by the Contracting Officer, prepare an ESS for coordination and approval by the Department of Defense Explosive Safety Board. The A-E shall use the format specified in Reference 6.9.3.17. Option 1 will be awarded on or before the completion of the Final EE/CA Report milestone.

3.18 (Task 18) – Additional Sampling Acreage (115 acres). **NOTE: See modifications to this table in Paragraph 3.19.** The A-E shall, if directed by the Contracting Officer, safely perform IAW the Work Plan all the above field-related tasks (including Tasks 4 through 11)

to characterize up to an additional 115 acres beyond the 215 acres (characterized in the base). The Sampling will consist of 25% grid and 75% meandering path. Option 2 will be awarded on or before the completion of the Draft EE/CA Work Plan.

3.19 **(Task 19) – Visual Reconnaissance Phase.** The visual reconnaissance to be performed in Sectors 1, 3, 6, 7, and 8 could potentially eliminate the need for geophysical mapping and intrusive investigation in these same areas. The visual reconnaissance phase will give a physical visual check of area that were not documented as being used for live fire, but may have been used in other forms of training, maneuvers, and bivouacs. The table below summarizes the total acres to be visually inspected, the planned sampling acreage (per the Reconnaissance and Site Prioritization Report dated 3 February 2000), sampling acreage to be eliminated and the miles of random path or grid investigations that can be retained (or added) for each affected sector.

Sector	Total Sector Area (acres)	Initial Sampling Acreage	Initial Number of Sampling Grids	Initial Random Path Miles	Visual Reconnaissance Area	Net Change in Sampling Acreage
1	12,516	23.3	10	26.4	12,516	-18.9
2	2,498	30.0	98	9.5		+8.0
3	28,058	23.3	10	26.4	28,058	-19.0
5	5,963	23.0	25	21.9		+3.0
6	24,022	23.3	25	22	12,011	-9.5
7	21,601	23.3	25	22	10,800	-11.0
8	11,070	30.7	13	34.8	11,070	-25.0
9	2,869	23.0	25	21.9		+3.0
10	8,420	23.0	25	21.9		+2.0
	117,017	222.9			74,455	-67.4

As illustrated in the table, not all sampling acres have been eliminated in any of the sectors. The visual reconnaissance will allow specific parts of sector to be visually

inspected for evidence of use, prior to the full geophysical mapping and investigation method is employed in these areas. Therefore, covering greater amounts of acreage as part of the investigation of this Phase II EE/CA.

The table listed above modifies the information listed in Table 2.4 earlier. It also modifies the quantities (not quality or methodology) of acreage to be investigated under previous Paragraphs 3.7, 3.8, and 3.18.

4.0 SUBMITTALS AND CORRESPONDENCE

4.1 Format and Content of Engineering Reports. Engineering Reports presenting all data, analyses, and recommendations shall be prepared and submitted by the A-E. All drawings shall be of engineering quality in drafted form with sufficient detail to show interrelations of major features. The contents and format of the engineering reports shall be arranged in accordance with all pertinent guidance documents. When drawings are required, data may be combined to reduce the number of drawings. Reports shall consist of 8-1/2 inch by 11-inch pages with drawings other than the construction drawing folded, if necessary, to this size. A decimal paragraphing system shall be used, with each section and paragraph of the reports having a unique decimal designation. The report covers for each submittal shall consist of durable 3-ring binders and shall hold pages firmly while allowing easy removal, addition, or replacement of pages. A report title page shall identify the site, the A-E, the Corps of Engineers District, Huntsville Center, and the date. The A-E identification shall not dominate the title page. All data, including raw analytical and electronic data, generated under this delivery order are the property of the DoD and the government has unlimited rights regarding its use.

4.2 Computer Files. All final text files generated by the A-E under this contract shall be furnished to the Contract Officer in Word 6.0 or higher software, IBM PC compatible format. All final CADD/GIS data, design drawings and survey data generated by the A-E under this delivery order shall be submitted in the proper format and media that will permit their loading, storage, and use without modification or additional software on the Huntsville Center CADD/GIS workstations.

4.3 HTML Deliverables. In addition to the paper and digital copies of submittals identified above, the final version of the EE/CA and the Action Memorandum shall be submitted in an electronic format as follows: uncompressed, on one floppy disk or CD-ROM in hypertext markup language (HTML) along with a linked table of contents, linked tables, linked photographs, linked graphs and linked figures included and suitable for viewing on the Internet.

4.4 Review Comments. Various reviewers will have the opportunity to review submittals made by the A-E under this contract. The A-E shall review all comments received through the CEHNC Project Manager and evaluate their appropriateness based upon their merit and the requirements of the SOW. The A-E shall issue to the Project Manager a formal, annotated response to each in accordance with the schedule in paragraph 4.13

4.5 Draft Reports. Each page of draft reports shall be stamped "DRAFT". Submittals shall include incorporation and notation of all previous review comments accepted by the A-E.

4.6 Identification of Responsible Personnel. Each report shall identify the specific members and title of the A-E's staff and subcontractors that had significant, specific input into the reports' preparation or review. All final submittals shall be sealed by the registered Professional Engineer-In-Charge.

4.7 Minutes of Meetings. Following the presentation, the A-E shall prepare and submit minutes of all meetings attended to the Contract Officer or his representative within 10 calendar days.

4.8 Correspondence. The A-E shall keep a record of each phone conversation and written correspondence affecting decisions relating to the performance of this IDC. A summary of the phone conversations and written correspondence shall be submitted

with the monthly progress report to the Contract Officer. Guidelines for such documentation is references in OT-055

4.9 Project Control and Reporting. The A-E shall prepare and submit a master network schedule (using Microsoft "Project" software), cost and manpower plan, monthly progress reports, technical progress reports, monthly individual performance reports and cost/schedule variance report, work task proposal plan, and a program control plan.

4.10 Monthly Progress Report. The A-E shall prepare and submit a monthly progress report describing the work performed since the previous report, work currently underway and work anticipated. This report shall show the earned value curves for the amount of funds obligated, planned and actually spent to date on the project. This will allow the continuous tracking of the actual cost versus the proposed cost oot the beginning of the project. The report shall state whether current work is on schedule. If the work is not on schedule, the A-E shall state what actions are anticipated in order to get back on-schedule. The report shall be submitted not later than the 10th day of the following month.

4.11 Public Affairs. The A-E shall not publicly disclose any data generated or reviewed under this contract. The A-E shall refer all requests for information concerning site conditions to the local Corps District's Public Affairs Office, with a copy furnished to the CEHNC Project Manager. Reports and data generated under this contract are the property of the DoD and distribution to any other source by the A-E, unless authorized by the Contract Officer, is prohibited.

4.12 Addresses. The following addresses shall be used in mailing submittals:

ADDRESSEE	QUANTITY
Commander US Army Corps of Engineers, Huntsville Center ATTN: CEHNC-OE-DC-D PO Box 1600 Huntsville, Alabama 35807-4301	3
Commander US Army Corps of Engineers, Honolulu District ATTN: CEPOH-PM, Ms. Helene Takemoto Bldg. 230 Fort Shafter, HI 96858-5440	3

4.13 Schedule and Submittals. The A-E shall submit all deliverable data to the Contract Officer and other reviewers shown in Paragraph 4.12 in accordance with the following schedule. All submittals shall be delivered to all addressees no later than the close of business on the day indicated in this paragraph. In addition, registered mail or other method shall ship submittals to regulatory reviewers where a signed receipt is obtained indicating the date received and the individual accept the submittal.

DOCUMENT	DATE DUE
Target Award Date of Task Order	1/3/00
ASSHP	At least 3 working days prior to on site-activities
Draft Site Prioritization Report	2/4/00
A-E Receive Comments from Govt.	2/15/00
Final Site Prioritization Report	3/3/00
Draft EE/CA Work Plan	3/3/00
A-E Receive Comments from Govt.	3/24/00
Final EE/CA Work Plan	4/24/00
A-E Receive Approval to Begin Fieldwork	9/21/00
Institutional Analysis Report /	
Interim Statistical Sampling Report	8/4/00
Draft EE/CA Report	3/6/01

A-E Receive Comments from Govt./	
On-Board Review at Contractors Office	4/3/01
Preliminary Final EE/CA Report	11/17/00
Public Meeting	4/28/01
A-E Receive Comments from Govt. and Public	6/12/01
Final EE/CA Report	7/2/01
Draft ESS	7/12/01
A-E Receive Comments from Govt. .	9/19/01
Final ESS	9/23/01
Draft Action Memorandum	9/12/01
A-E Receive Comments from Govt.	9/19/01
Final Action Memorandum	
& Responsiveness Summary	9/23/01
Monthly Report	NLT 10th of following month
Minutes of Meetings	NLT 10 days after each Meeting

The overall completion date of this delivery order is 31 March 2002, including all options.

5.0 SAFETY AND HEALTH PROGRAM

The A-E shall develop and maintain a Health and Safety Program (HSP) in compliance with the requirements of OSHA standards 29CFR1910.120(b)(1) through (b) (4). The A-E shall provide written certification the HSP has been submitted to the CO and make the HSP available upon request by the Government. The SSHP required by 29CFR1910.120(b)/29CFR1926.65(b)(4), and as defined by TAB 013 (DID OT-005-06?), shall be prepared and submitted with the Work Plan for approval. On-site activities shall not commence until the plan has been reviewed and accepted. The A-E's Site Safety and Health Officer (SSHO) shall have the training, knowledge and experience necessary to implement the SSHP and have the same minimum qualifications as an UXO Supervisor.

6.0 REFERENCES.

- 6.1 National Contingency Plan, 40 CFR 300.
- 6.2 Federal Acquisition Regulation, FAR Clause 52.236-13: Accident Prevention.
- 6.3 Army Corps of Engineers Safety and Health Requirements Manual.
- 6.4 EM-385-1-1, October 1992.
- 6.5 Army Corps of Engineers, ER-385-1-92, Appendix B, Safety and Occupational Health Document Requirements for Hazardous Toxic and Radioactive Waste (HTRW) and Ordnance and Explosive Waste (OE) Activities, 18 March 1994.
- 6.6 Occupational Safety and Health Administration (OSHA) General Industry Standards, 29 CFR 1910 and Construction Industry Standards, 29 CFR 1926; especially 196.120/29CFR1926.65-"Hazardous Waste Site Operations and Emergency Response."
- 6.7 NIOSH/OSHA/USCG/EPA, "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities," October 1985. (DHHS/NIOSH) Publication No. 85-115).
- 6.8 CEHNC 1115-3-86, "Ordnance and Explosives Cost-Estimating Risk Tool (OECert) Standing Operating Procedure (SOP)," November 1996.
- 6.9 Explosives Safety Submission format, CEHNC, October 1998.
- 6.10 Data Item Description, OT005-01, Work Plan
- 6.11 Data Item Description, OT005-02, Technical Management Plan
- 6.12 Data Item Description, OT005-03, Explosives Management Plan
- 6.13 Data Item Description, OT005-04, Explosives Siting Plan
- 6.14 Data Item Description, OT005-05, Geophysical Investigation Plan
- 6.15 Data Item Description, OT005-06, Site Safety and Health Plan
- 6.16 Data Item Description, OT005-07, Location Surveys and Mapping
- 6.17 Data Item Description, OT005-08, Work, Data, and Cost Management Plan
- 6.18 Data Item Description, OT005-09, Property Management Plan
- 6.19 Data Item Description, OT005-010, Sampling and Analysis Plan
- 6.20 Data Item Description, OT005-011, Quality Control Plan
- 6.21 Data Item Description, OT005-012, Environmental Protection Plan
- 6.22 Data Item Description, OT005-013, Investigative Derived Waste Plan
- 6.23 Data Item Description, OT-015, Accident/Incident Report
- 6.24 Data Item Description, OT-025, Personnel Qualification Standards
- 6.25 Data Item Description, OT-030r, Site Specific Removal Report
- 6.26 Data Item Description, OT-040, Disposal Feasibility Letter Report
- 6.27 Data Item Description, OT045, Reports/ Minutes, Record of Meetings
- 6.28 Data Item Description, OT055, Telephone Conversation/Correspondence Record
- 6.29 Data Item Description, OT060, Conventional Explosive Safety Submission
- 6.30 Data Item Description, OT085, Weekly Status Report
- 6.31 Data Item Description, EE/CA-090, EE/CA Report
- 6.32 Data Item Description, EE/CA-006, Analysis of Institutional Controls